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THE SEQUENCE OF GENERA IN THE ESTRILDIDAE (AVES)

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The manuscript for the list of the Estrildidae in volume XIV of Peters' Check-list of Birds of the World is being prepared by three authors, Melvin Traylor (Africa), R. Paynter (Oriental and Palearctic Regions), and myself (Papuan Region and Australia). The task of coordinating the three accounts was assigned to me. Since each species, with few exceptions, is restricted to a single geographical region, the main problem of coordination is the recognition of genera and the choice of a sequence. To have a widely acceptable sequence of genera is particularly important in view of the fact that members of this family are used increasingly for behavior studies and in physiological research.

Research on the classification of the Estrildidae has been very active in the last two decades, particularly since the publication in 1943 of Delacour's classical study. This was the first consistent attempt to arrange the genera in groups, and to utilize various biological characters (courtship, palate markings of the nestlings, etc.). The subsequent researches of Steiner, Wolters, Immelmann, Nicolai, and others, have all been endeavors to improve on the foundation laid by Delacour.

The ranking of the taxon Estrildidae and its delimitation from the Viduinae and the Ploceidae have been discussed by several authors. Until recently the estrildids were considered a subfamily of the Ploceidae. Delacour (1943) derived them from the Sporopipinae, and neither Chapin (1917) nor Sushkin (1924, 1927) questioned the close relationship of the weavers and estrildids. The realization has, however, grown in recent years that not all "finches" are necessarily a monophyletic assemblage, and that a cone-shaped bill may have been acquired independently in several groups of seed-eating birds. There is no a priori necessity for a close relationship between ploceids and estrildids. Steiner (1955) undertook a careful comparison of the two groups and concluded that they differ in so many important characters that he questioned a close relationship. Some of these differences are valid only in a comparison of the Estrildidae and the Ploceinae (*sensu stricto*). The opinion has therefore been expressed, that the stated differences are only subfamily differences. It is still possible that the Ploceidae are the nearest relatives of the Estrildidae; nevertheless, the differences are numerous and striking. Estrildids and ploceids are clearly different in courtship posture, clutch size, egg coloration, pattern in mouth of the young, and mode of begging of the young. In an analysis of the structure of the digestive tract, Ziswiler (1967) comes to the conclusion that the Estrildidae are far more different from the Ploceidae than the ploceid subfamilies are from each other. The Viduinae, interestingly, agree in this character quite well with the other Ploceidae rather than with the Estrildidae. Africa is the home of the most primitive genera of estrildids and, presumably, the home of the family. It must be an old family, considering the subsequent rich radiation in the Australian Region. It is advisable for the time being to consider the estrildids a separate family, perhaps distantly related to the Ploceidae, but sufficiently distinct to deserve family rank.

The Viduinae are nest parasites of the Estrildidae and have generally been considered to be very closely related to them. The similarity in the palate pattern of the nestlings was undoubtedly the major reason for this opinion. Delacour (1943: 73) questioned this assumption: "As there exists no transition between [the Estrildinae and the Viduinae], it appears that their similarities are due to recent adaptation and I have come to the conclusion that the Estrildinae have probably evolved independently from the Sporopipinae, just as have the Viduinae and the Ploceinae." The fact that the nestlings of each *species* of *Vidua* have the palate markings of one particular species of waxbills clearly indicates convergence rather than common descent. In the meantime, Nicolai (1964) has demonstrated convincingly that the similarities between viduines and estrildids are due to nest parasitism. He has, in addition, produced evidence to indicate a derivation of the viduines from *Euplectes*. To indicate this relationship, the Viduinae should be treated as a subfamily of the Polceidae rather than of the Estrildidae. Sibley (MS) has discovered similarities in the starch gel patterns of viduines and Passerinae.

The valid name of the (sub-) family of the estrildids is still somewhat in doubt. The first available name for this taxon is apparently Spermestinae Cabanis (1847, Arch. Naturg., 13: 331, also 1851, Mus. Heineanum, 1, Singvögel: 172), based on the generic name *Spermestes* Swainson 1837. This name has since been used occasionally, as in Gray, 1870 (Handlist Birds, 2: 49), Reichenow, 1904 (Vögel Afrikas, 3: 103), Steiner, 1960 (J. Ornith., 101: 92-112), and in some of the avicultural literature.

In the scientific ornithological literature the name Spermestinae has been almost completely displaced by the name Estrildidae. This name was apparently first proposed by Bonaparte, 1851 (Consp. Av., 1: 450) (erroneously spelled Estreldinae), based on the genus *Estrilda* Swainson 1827. Bonaparte's name, in its corrected spelling Estrildinae, is used in virtually all those modern standard works in ornithology, in which the (sub-) family is recognized as different from the Ploceidae. It is the name used by Stuart Baker (1926, Fauna Brit. India, Birds, 3: 77), Sclater (1930, Syst. Av. Aethiop., p. 769), Berlioz (1950, *in* Grassé's Traité Zool., 15: 1039), Chapin (1954, Birds Belgian Congo, 4: 451), and Ripley (1961, Synopsis Birds India: 602).

The name Estrildinae is likewise the name adopted by most modern revisers of the family, for instance by Delacour (1943, Zoologica, 28: 69), Wolters (1957, Bonn. Zool. Beitr., 8: 90-129), and Keast (1958, Emu, 58: 219-246). It is the name adopted in general classifications, such as Mayr and Amadon (1951, Amer. Mus. Novit., 1496: 38).

The name Spermestinae has presumably been rejected almost universally because the name *Spermestes* Swainson 1837, on which it is based, is considered by most modern authors to be a synonym of *Lonchura* Sykes 1832. If the name Spermestinae were restored, the valid name of the type genus of this subfamily would be *Lonchura,* an inconvenient lack of congruence. The name *Spermestes* has not even been used by recent authors for any of the subdivisions of the Estrildidae, the waxbills (Estrildae), the grass finches (Erythrurae or Poephilae), or the mannikins (Amadinae or Lonchurae).

It is clear that this is a situation to which Article 23d (ii) of the International Code is applicable. There is strong justification for the name Estrildidae to be placed on the Official List and the name Spermestidae on the Official Index.

Delacour's revision was followed by reviews of the family (or some of the species) by Desmond Morris (1954, 1958), Moynihan and Hall (1954), Wolters (1957), Steiner (1960), Hall (1962), and Immelmann (1962). Steiner, in particular, proposed a classification which differed drastically in many ways from that of Delacour. For the 108 (-110) species of the family, Delacour recognized 15 genera with a total of 26 subgenera (including the nominate subgenera), while Steiner recognized 34 genera with 53 subgenera, and Wolters 31 genera with 62 subgenera.

It has become very evident that there is at present a real difference of opinion between the taxonomists and the ethologists concerning the size of genera. In recent years many species of estrildids have been kept in captivity and their courtship and other aspects of biology have been carefully analyzed. Through these studies the ethologists have discovered more and more behavior differences even between the most closely related species, and are therefore enormously impressed with the distinctness of every species (except a few sibling species or semispecies). As a consequence, they tend to admit numerous genera, many of them monotypic. For instance, Immelmann (1965) recognizes 13 genera for the 16 native Australian superspecies of estrildids (2 species have 2 semispecies each). Such an emphasis on distinction destroys the concept and function of the genus as a means of expressing relationship. Admittedly, there are some extremely distinct species which must be classified as monotypic genera, but for others it is much better to place them in the same genus with the most nearly related species. Recognition of subgeneric status is sufficient to bring out the proper level of distinctness.

The discrepancy between the various authors with respect to the sequence of genera is equally disconcerting. Although Delacour's sequence, waxbills, grass finches, and mannikins, has been, on the whole, adopted by most subsequent authors, there has been great variation in the sequence of genera within each subgroup, and in the assignment of certain genera, particularly *Aegintha, Amadina, Erythrura,* and *Chloebia,* to the three subgroups.

In an endeavor to achieve a reasonable consensus, I worked out a tentative sequence of recognized genera, and submitted it to the following specialists for their opinions: Collin Harrison, Klaus Immelmann, Allen Keast, Desmond Morris, J. Nicolai, Melvin A. Traylor, and H. W. Wolters. They responded most generously and supplied me with abundant details bearing on the question of relationship and the importance of various taxonomic characters. A revised sequence, prepared on the basis of this first set of answers, was circulated together with a questionnaire in which 19 specific questions were asked concerning sequence and the advisability of recognizing certain genera.

The present paper is the result of an analysis of this correspondence. It is obvious that relationships cannot be decided by majority vote, and yet I feel that an arrangement that has been reached in consultation with the active specialists has a greater prospect for stability than an arrangement based on the opinions of a single worker. The following comments may be useful to other students of the Estrildidae. Publication of these notes at this time may stimulate further research that can still be utilized in the preparation of the manuscript on this family for Peters' Check-list of Birds of the World.

The Estrildidae appear to be unique among bird families in that color pattern is a relatively poor clue to relationship. On the other hand, courtship song (Hall, 1962) and display postures seem to have high taxonomic weight. As a consequence, a sorting of the species and genera on the basis of coloration leads to a classification which is flatly contradicted by various biological characteristics, including the palate pattern of the young. As in all weighting of taxonomic characters, there is an element of subjectivity in the decision to give higher weight to behavioral characters than to plumage pattern, yet this decision is supported in this family by a correlation among the various biological characters. The sequence here proposed is based on this correlation.

THE WAXBILLS (ESTRILDAE)

A glance at Delacour's diagram of relationships (1943, fig. 1) clearly shows the central position of *Clytospiza*. One might, therefore, start the sequence of genera with *Clytospiza* and follow it with the several derived sequences. However, this not only results in several breaks in the sequence, but it also removes *Clytospiza* far from the *Estrilda* group which also seems to be derived from a *Clytospiza*-like ancestor. Under the circumstances, it is better to adopt the following sequence: *Parmoptila, Nigrita, Nesocharis, Pytilia, Mandingoa, Cryptospiza, Pirenestes, Spermophaga,* and *Clytospiza*. This arrangement differs from that of Delacour in two significant respects: *Nesocharis* Shelley is considered a valid genus, probably related to *Nigrita; Mandingoa* (*nitidula*) is considered related to *Cryptospiza* rather than to *Hypargos*. All 9 genera are well defined and form a primitive group among the waxbills, a group on the whole more closely associated with bushes or forest than with grass. "I place *Nesocharis* near *Nigrita* to which it has some similarity in mouth markings and habits, but affinities with *Nigrita* are by no means certain. However, I can find no better place for this very distinct, tit-like genus" (Wolters *in litt.*).

There is comparatively little argument about the *Estrilda* group among the waxbills, except on the number of valid genera. Delacour placed all species in *Estrilda* (and *Hypargos*), while Steiner, Wolters, and Immelmann would like to recognize a minimum of 8 genera, probably best arranged in the following sequence: *Hypargos, Euschistopiza, Lagonosticta, Uraeginthus* (= *Granatina*), *Estrilda, Ortygospiza, Amandava* (incl. *Sporaeginthus*), and *Stictospiza.* Two pairs of these "genera" are rather close to each other, and it may result in more equal standards when *Lagonosticta* and *Uraeginthus* are combined, and also *Amandava* with *Stictospiza.* "*Uraeginthus* is closer to *Lagonosticta* than to *Estrilda* with which it has been merged by several authors" (Wolters *in litt.*). *Estrilda, Lagonosticta,* and *Uraeginthus* have been lumped at various times or split more finely. *Estrilda* and *Lagonosticta* seem sufficiently different in song and courtship to be maintained as two genera. *Uraeginthus,* on the other hand, is sufficiently closer to *Lagonosticta* than to *Estrilda,* that it might be treated only as a subgenus (Wolters, 1966). The species of this group are to be assigned as follows (not necessarily exactly in the listed sequence):

Estrilda
  melanotis, paludicola, melpoda, rhodopyga, troglodytes, astrild, nonnula, atricapilla, erythronotos (+ *charmosyna*), *thomensis, perreini, caerulescens, rufibarba, nigriloris*

Lagonosticta, subg. *Lagonosticta*
  larvata + *nigricollis* + *vinacea, rara, rubricata, rhodopareia* + *jamesoni, senegala, rufopicta, nitidula, landanae*

Lagonosticta, subg. *Uraeginthus*
  bengalus, angolensis, cyanocephala, granatina, ianthinogaster.

Granatina (1850) would have one year priority over *Uraeginthus* (1851), if it were an available name. It was, however, published by Bonaparte in the plural as *Granatinae,* and is thus not available according to Article 11f of the Code. The subgenus has to be called *Uraeginthus.*

"The similarities between *Ortygospiza* and *Amandava* in plumage pattern, mouth markings, and behavior are so numerous that it would be difficult to believe that they should be due to convergence" (Wolters *in litt.*). *Ortygospiza* deserves only subgeneric status.

THE GRASS FINCHES (POEPHILAE)

Aegintha (*temporalis*) is a problem. On first sight, the Australian *temporalis* seems very close to the African *Estrilda* (e.g. *melpoda*), and this is where Delacour placed it. Yet, in its display and some other respects it seems close to the Australian *Emblema* group and is placed with the Australian genera by Steiner, Immelmann, and Wolters. Others still think that the similarity to *Estrilda* is more than convergence. At present, it would seem best to place *Aegintha* in the grass finches, but closest to the waxbills. "*Aegintha* is the '*Estrilda*-type' among the Australian finches. Superficially, there is considerable similarity with African *Estrilda,* but the green of *Aegintha* is not found anywhere among the Estrildae (the kind of green in *E. melanotis* is quite different). The eyestripe is *above* the eye, not through the eye, and of a different red. The courtship has rather primitive aspects as in *Estrilda* and *Zonaeginthus,* and does not provide decisive information. I am not at all convinced of any close relationship between *Aegintha* and *Estrilda.*" (Immelmann, 9. IV. 1966 *in litt.*).

Delacour recognized only three genera, *Zonaeginthus* [=*Emblema*], *Poephila,* and *Erythrura.* All subsequent work has confirmed the naturalness of these three groups, but this is where the agreement ends. Steiner, for instance, splits *Emblema* into 7 genera (*Zonaeginthus, Stagonopleura, Emblema, Aidemosyne, Bathilda, Neochmia,* and *Oreostruthus*), all but *Zonaeginthus* (2 species) monotypic. *Aidemosyne,* as shown by recent researches (Steinbacher and Wolters, 1953 ff.; Keast, 1958; Morris, 1958; Immelmann, 1962), is close to *Lonchura* and must be shifted to the mannikins. The palate pattern is the only resemblance with the *Emblema* group. To split the remaining *Emblema* group into 6 genera seems excessive. Recognition of three genera, *Emblema* (with *Stagonopleura* and *Zonaeginthus*), *Oreostruthus* (the somewhat aberrant Papuan genus), and *Neochmia* (with *Bathilda*) would seem to give better balance.

There is great confusion about the nomenclatural validity of the generic names in the *Emblema* group. The name *Stagonopleura* was proposed by Reichenbach in 1850 for a bird of which a black-and-white drawing of head, legs, and tail is given. Subsequent authors have applied the name to various groups of Australian estrildines, but the combination of a gray (or at least dark) crown, black lores and eye patch, and light (?white) unmarked chin and throat occurs in only one species, the Diamond Firetail Finch (*guttata*). Cabanis was therefore quite right (1851, Mus. Hein., 1: 172) in designating *Loxia guttata* Shaw as type for "Reichenbach's genus." The name *Stagonopleura* (pleurae with drop-like spots) also fits this species excellently.

Bonaparte (1851, Consp. Av., 1: 456), even though crediting the name to Reichenbach, inadvertently misspelled it *Steganopleura* (covered-up or roofed-over pleurae), which makes no sense for this species. This spelling does not constitute an available name, since it is clearly an "incorrect subsequent spelling" and not an "intentional emendation" in the sense of Article 33. As stated in the Code: "Any change in the spelling of a name, other than an emendation, is an 'incorrect subsequent spelling'; it has no status in nomenclature and therefore does not enter into homonymy and cannot be used as a replacement name."

Ignoring the unavailability of this name, Mathews (1919, Birds of Australia, 7: 434) designated *Fringilla bichenovii* Vigors and Horsfield as the type of *Steganopleura* Bonaparte and used it for the group of species previously known under the generic names *Stictoptera* Reichenbach or *Stizoptera* Oberholser. This was clearly an invalid action.

For *Stagonopleura* of Reichenbach 1850, Mathews uses his own name *Tavistocka* 1919, while Delacour, Keast, and Immelmann use *Zonaeginthus* Cabanis 1851. Actually, as shown above, *Stagonopleura* continues to be an available name, but there is doubt as to its validity (see under *Emblema* below).

Keast employs a subgenus *Zonaeginthus* (*Emblema*), but since *Emblema* was proposed in 1842 and *Zonaeginthus* in 1851, it clearly will have to read *Emblema* (*Zonaeginthus*). Immelmann recognized *Emblema* as a separate genus from *Zonaeginthus,* which carries splitting rather far. For the closely knit group of species consisting of *pictus, oculatus, bellus,* and *guttatus* Shaw we have thus three generic names available: *Emblema* Gould 1842 (*picta*), *Stagonopleura* Reichenbach 1850 (*guttata*), and *Zonaeginthus* Cabanis 1851 (*bellus*), and the only remaining question is whether the name *Emblema* is valid or preoccupied.

Emblema Gould 1842 was in unchallenged use between 1842 and 1930, when Iredale (1930, Austral. Zool., 6: 175) contended that it was preoccupied by *Emblema* Deshayes 1840 (mollusks). He renamed it *Cayleyna.* Deshayes' name was neither an erroneous spelling of *Amblema* Rafinesque nor a valid emendation. When one looks up the original citation of *Emblema* Deshayes (1840, D'Orbigny's Dict. Univer. Hist. Nat. 1: 334), one finds that he mentions *Emblema* merely in a purely philological comment, as the correct transliteration of the Greek word from which it was derived, but lists his discussion under "Amblème (*Amblema*)." Since he does not adopt *Emblema,* this spelling cannot qualify as an emendation in the sense of Article 33. It is a spelling without nomenclatural status. It is fortunate for the stability of nomenclature that there are only a few authors who would use the flimsy excuse of this philological discussion to upset the nomenclature of a well-known genus that had been totally stable for the preceding 88 years! Nor have the malacologists ever employed the version *Emblema*. Since 1914, the name *Amblema* Rafinesque has been used universally for the so-called washboard clams (type, *A. costata* Rafinesque, 1820) and there is not the slightest reason for suppressing *Emblema* Gould for fear that it might be confused with the molluskan genus *Amblema*. A recent Opinion of the Commission (not yet published) deals with this name. Since writing this, I have discovered that Mees (1961, J. Roy. Soc. West. Austr., 44: 123) had independently come to the same conclusions.

The complete synonymy of the genus *Emblema* is thus as follows:

Emblema Gould, 1842, Birds Australia, pt. VII. Type, by monotypy, *E. picta* Gould. [Not preoccupied by the nomenclaturally unavailable *Emblema* Deshayes 1840.]

Stagonopleura Reichenbach, 1850, Av. Syst. Nat., pl. LXXV. Type, by subsequent designation (Cabanis, 1851), *Loxia guttata* Shaw.

Steganopleura Bonaparte, 1851, Consp. Gen. Av., 1: 456. Nomenclaturally unavailable, as an "incorrect subsequent spelling."

Zonaeginthus Cabanis, 1851, Mus. Hein., 1:171. Type, by subsequent designation (Gray, 1855: 76), *Loxia nitida* Latham = *L. bella* Latham.

Tavistocka Mathews, 1919, Birds Australia, VII: 434. New name for *Stagonopleura* Reichenbach.

Cayleyna Iredale, 1930, Austr. Zool., 6: 175. New name for *Emblema* Gould.

The *Poephila* group is typical for the difficulties one faces in the grass finches. There are three fairly distinct species groups, containing species that "are highly specialized in color pattern and general proportions, and no intermediates exist between them. That is the reason why so many monotypic, and in my judgment utterly unnecessary genera have been created for them" (Delacour, 1943: 80). The behavior specialists, on the other hand, are impressed by the differences. I propose a compromise solution, in which two subgenera (*Poephila, Taeniopygia*) are recognized. The species *bichenovii* is not sufficiently different from *guttata* Vieillot to justify recognition of a third subgenus (*Stizoptera*). The grass finches *sensu stricto,* after the removal of *Erythrura* (see below), should be called the Poephilae, consisting of the genera *Emblema, Oreostruthus, Neochmia,* and *Poephila.*

THE MANNIKINS (LONCHURAE)

Gould's Finch (*gouldiae*), as shown by recent behavior studies (Wolters, 1950; Mitchell, 1958; Immelmann, 1959; and Steiner, 1960), does not belong in *Poephila.* It was first thought to fit into *Erythrura* but recent studies indicate similarities also with *Lonchura* (Nicolai MS; Hall MS; Immelmann, 1962). Recognition of the genus *Chloebia* (near *Erythrura*) for *gouldiae* would seem indicated until the situation is better understood. It is also now becoming clear that *Erythrura* is not really a grass finch, related to *Emblema-Poephila,* but that it is very distantly related to the *Lonchura* group. The *Erythrura* group is, however, very isolated.

"*Chloebia* shows a great deal of similarity with *Erythrura* in plumage color and mouth markings but reminds one in pattern also of some species of *Lonchura* (e.g. *castaneothorax*). In behavior it occupies an equally intermediate position, only there are more similarities with *Lonchura* than with *Erythrura.* The voice of *Chloebia* is typical for *Erythrura,* while the display is very similar to that of *Lonchura malacca, L. maja,* and *L. castaneothorax. Chloebia* sings with the same rigid posture and a pulled-in head as these species of *Lonchura,* but has retained a number of ancestral components of the Estrildidae courtship which have been lost by the *Lonchura* species, such as the hopping during the courtship dance. The species of *Erythrura* which I know best (*trichroa, cyanovirens, psittacea*) not only fail to carry grass stems during their display but even the dance itself has completely disappeared." (Nicolai, *in litt.*).

The precopulatory display of *Erythrura* is unique among the Estrildidae and resembles neither that of *Lonchura* nor that of any other genus. "*Erythrura prasina* is somewhat intermediate between typical *Erythrura* and *Chloebia* and since the latter has many similarities with *Lonchura,* I believe that it is best to place *Chloebia* between *Erythrura* and *Lonchura.*" (Nicolai, 4 August 1965, *in litt.*).

The mannikins are, on the whole, a homogeneous group. The only genera whose assignment to the Lonchurae can be questioned are *Amadina* and *Chloebia-Erythrura.* As far as the remaining species are concerned, there is only the question of the number of genera to be recognized. Are *Euodice, Odontospiza,* and *Spermestes* valid? *Spermestes* (and *Odontospiza*) have certain primitive traits, and so does *Euodice* (which Harrison, 1964, cannot confirm). Some recent authors recognize *Spermestes* as different from *Lonchura;* others, like Delacour, do not. Kunkel (1965) lists the behavioral differences, which to me do not seem to justify more than subgeneric rank. The same is true for *Euodice*. *Odontospiza* deserves generic status even less and is best placed in the same subgenus (*Euodice*) as *malabarica-cantans*. The Java Finch (*oryzivora*) is so distinct that it is best recognized as a separate genus (*Padda*), even though admittedly *Padda fuscata* connects this genus with *Lonchura; "Heteromunia"* (*pectoralis*) is so close to *Lonchura*, particularly the *castaneothorax* group, that it cannot be recognized as a monotypic genus, even though it has some remarkable specializations (Immelmann, 1965). The suggestion that it is closely related to *modesta* (*Aidemosyne*) does not seem well substantiated.

Even though neither *Spermestes* nor *Euodice* is sufficiently different from *Lonchura* to justify generic separation, I have recognized them as subgenera for those who like to emphasize their distinctiveness.

The grouping and the sequence of species in *Lonchura* (*sensu stricto*) is a problem. Certain groups are well defined, for instance the *castaneothorax* group (with *flaviprymna, castaneothorax, teerinki, stygia, monticola, montana,* and *melaena*). Another fairly well defined assemblage consists of *punctulata, kelaarti, leucogastra, molucca, leucogastroides, fuscans,* and *striata*. The two New Guinea species *tristissima* and *leucosticta* stand well apart. The difficulties are with the remaining species. *L. quinticolor* (Lesser Sunda islands) is usually placed near *grandis* of New Guinea, but the similarity may well be superficial. The species *maja* and *pallida* are usually placed near the *castaneothorax* group, supposedly connected by *flaviprymna,* but I consider this similarity as secondary. *L. flaviprymna* seems to have lost the typical characters of the *castaneothorax* group, perhaps as a result of life in arid Australia. There has been a good deal of parallelism and convergence in this group of mannikins, and further analysis of songs and other characters is needed. (The sequence adopted in the Check-list attempts to bring close relatives together, but is surely not the last word.)

Amadina is perhaps the most aberrant genus of the mannikins. It does not quite fit with anything and is best listed last. Most likely it is an aberrant offshoot of the *Lonchura* group. *Padda* is close to *Lonchura,* but somewhat specialized. *Lonchura* is undoubtedly the central genus of this whole assemblage and the mannikins should be called Lonchurae.

It is possible that the three groups now informally designated as the Estrildae, Poephilae, and Lonchurae, will eventually deserve to be recognized as three tribes. At present, it seems however, that the differences are not sufficiently trenchant to justify tribal status.

Furthermore, there are too many genera, the placement of which is still doubtful. An informal classification, as first proposed by Delacour, would seem more appropriate for the time being.

REVISED SEQUENCE OF GENERA OF ESTRILDIDAE

I. ESTRILDAE

1 *Parmoptila*
2 *Nigrita*
3 *Nesocharis*
4 *Pytilia*
5 *Mandingoa*
6 *Cryptospiza*
7 *Pirenestes*
8 *Spermophaga*
9 *Clytospiza*
10 *Hypargos*
11 *Euschistospiza*
12 *Lagonosticta*
13 *Estrilda*
14 *Amandava*

II. POEPHILAE

15 *Aegintha*
16 *Emblema*
17 *Oreostruthus*
18 *Neochmia*
19 *Poephila*

III. LONCHURAE

20 *Erythrura*
21 *Chloebia*
22 *Aidemosyne*
23 *Lonchura*
24 *Padda*
25 *Amadina*

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